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Volume III
Part 12

INTEGRATED INFORMATION SUPPORT SYSTEM (IISS)
Volume III - Configuration Management
Part 12 - IBM Installation Guide

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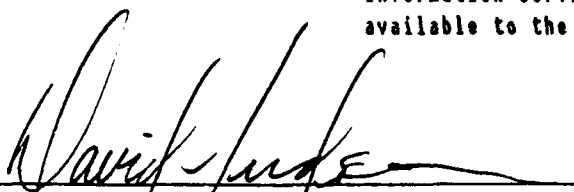**92-12190**
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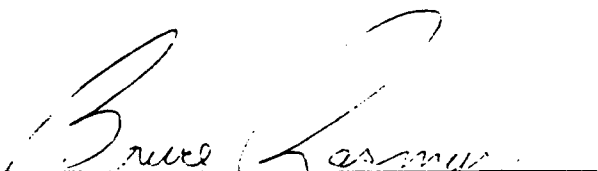
This technical report has been reviewed and is approved for publication.

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DATE 25 July 91

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This document provides the instructions necessary to install Release 3.0 of IISS from the IBM release tape onto any IBM computer containing the prerequisite system hardware and software.

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FOREWORD

This technical report covers work performed under Air Force Contract F33600-87-C-0464, DAPro Project. This contract is sponsored by the Manufacturing Technology Directorate, Air Force Systems Command, Wright-Patterson Air Force Base, Ohio. It was administered under the technical direction of Mr. Bruce A. Rasmussen, Branch Chief, Integration Technology Division, Manufacturing Technology Directorate, through Mr. David L. Judson, Project Manager. The Prime Contractor was Integration Technology Services, Software Programs Division, of the Control Data Corporation, Dayton, Ohio, under the direction of Mr. W. A. Osborne. The DAPro Project Manager for Control Data Corporation was Mr. Jimmy P. Maxwell.

The DAPro project was created to continue the development, test, and demonstration of the Integrated Information Support System (IISS). The IISS technology work comprises enhancements to IISS software and the establishment and operation of IISS test bed hardware and communications for developers and users.

The following list names the Control Data Corporation subcontractors and their contributing activities:

SUBCONTRACTOR	ROLE
Control Data Corporation	Responsible for the overall Common Data Model design development and implementation, IISS integration and test, and technology transfer of IISS.
D. Appleton Company	Responsible for providing software information services for the Common Data Model and IDEF1X integration methodology.
ONTEK	Responsible for defining and testing a representative integrated system base in Artificial Intelligence techniques to establish fitness for use.
Simpact Corporation	Responsible for Communication development.
Structural Dynamics Research Corporation	Responsible for User Interfaces, Virtual Terminal Interface, and Network Transaction Manager design, development, implementation, and support.
Arizona State University	Responsible for test bed operations and support.

TABLE OF CONTENTS

SECTION 1

INTRODUCTION

1.1 Scope

This guide is to be used for installing IISS
Release 3.0 from magnetic tape onto an IBM MVS computer. It
also provides the instructions for installing the IISS Network
Transaction Manager (NTM) and communications to a VAX computer
running IISS.

This guide is divided into five sections and appendices.
Section 1, provides the introduction and scope, including a list
of acronyms and abbreviations used within this guide. Section
2, lists the hardware and software you will need to install IISS
Release 3.0 successfully onto your IBM system. Section 3
describes the contents of the IISS Release 3.0 Installation
tape. Section 4 provides the installation procedure for
executable code using an easy-to-follow, stepped instruction
format. Section 5 provides the procedure for installing the
Inter-Host Communications subsystem. Appendix A lists the
default dataset names created during the IISS installation. If
you are installing IISS from source software, Appendix B
contains installation instructions for this purpose. You may
want to review these sections and appendices prior to beginning
the installation at step 1 to determine device names, port or
host IDs, process or dataset names you may need to know and then
enter when prompted during the installation process.

1.2 Acronyms and Abbreviations

CDM   Common Data Model subsystem
COMM Communications subsystem
IISS Integrated Information Support System
NDDL Neutral Data Definition Language
NDML Neutral Data Manipulation Language
NTM   Network Transaction Manager subsystem
PDS   Partitioned Data Set
UI   User Interface subsystem
VAX   Virtual Address Extension
VTI   Virtual Terminal Interface

SECTION 2

REQUIRED HARDWARE AND SOFTWARE

The following system hardware and software should be sufficient for the installation and operation of IISS. It is possible that later or earlier versions of some software also may be sufficient.

Hardware

IBM 4341, 303x, 308x

150 cylinders 3330 or equivalent disk space

1600 BPI tape drive

Software

MVS/SP 1.3 or MVS/XA

Assembler H, Version 2

COBOL VS R2.4

SAS C Compiler, Version 3.1

ACF/VTAM, Version 2

TSO with CLIST capabilities

SECTION 3

IISS RELEASE 3.0 INSTALLATION TAPE FORMAT

The format of the IISS Release 3.0 installation tape for the IBM is a bypassed label processing (BLP), 9-track tape written at 1600 bpi; it is a multi-file tape in the format of both IEBGENER and IEBCOPY input data streams.

SECTION 4

EXECUTABLE CODE INSTALLATION

The procedure for installing IISS Release 3.0 from magnetic media onto your IBM system is contained in this section. The procedure is a simple, stepped format designed to help you to quickly and easily install IISS onto your IBM system.

Note: Before beginning step one, you should review your installation requirements concerning naming conventions, because your system configuration may not allow highest-level identifiers beginning with IISSCM. If this is the case, you must make an entry in your Master Catalog establishing an alias.

BEGIN EXECUTABLE CODE INSTALLATION

Step 1.   Preparation for Downloading Installation JCL

At your system terminal, duplicate the JCL shown in Figure 4.1. You then will use this JCL to download the first dataset from the IISS installation tape. This first dataset, or file, File 1, contains the IISS installation JCL. You may have to modify the duplicated JCL to meet your installation's current system specifications before continuing the next step.

Step 2.   Download Installation JCL

After you have duplicated and, if necessary, modified the JCL shown in Figure 4.1, submit it to download the File 1 Installation JCL. If any errors are encountered, recheck the duplicated JCL, correct any errors and try again.

```
//IISSCM   JOB (IISSCM),'IISS SYSTEM',CLASS=A,MSGCLASS=X,
//         NOTIFY=IISSCM
//* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
//*                  CREATE JCL BUILD DATASET                       *
//* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
//DOWNLOAD  EXEC PGM=IEBCOPY,REGION=2000K
//SYSPRINT  DD SYSOUT=X
//SYSUT3    DD UNIT=WORK,SPACE=(CYL,20)
//SYSUT4    DD UNIT=WORK,SPACE=(CYL,20)
//IN1       DD DSN=OBJLIB1,UNIT=TAPE,DISP=OLD,
//             LABEL=(1,BLP,EXPDT=98000),
//             VOL=(,RETAIN,SER=AF231)
//OUT1      DD DSN=IISSCM.R23.BUILD,UNIT=3380,
//             DISP=(,CATLG,DELETE),SPACE=(TRK,(60,5,17),RLSE),
//             DCB=(DSORG=PO,BLKSIZE=3120,LRECL=80,RECFM=FB),
//             VOL=SER=WORK01
//SYSIN     DD *
 COPY INDD=IN1,OUTDD=OUT1
/*
```

Figure 4-1.   IISSCM.R23.BUILD Dataset.

Step 3.   Download IISS from Tape

After File 1 is downloaded to your IBM system, you may need to modify this JCL to your system's specifications. (Refer to Appendix A for a list of all the default dataset names created during this installation process.) After you have completed all required modifications, submit from File 1 the following member:

    IISSCM.R23.BUILD(DNLDCWF3)

NOTE: Ignore any return codes of 8 at the IEBC1 step.

Step 4:   Assign ACB Names

Assign the following, new ACB names to SYS1.VTAMLST:

```
> APPL   ACBNAME=IISST
         AUTH=(ACQ,NOCNM,NOPASS,NOPO,NOTSO,VPACE)
         EAS=2
> APPL   ACBNAME=IISSTIV
         AUTH=(ACQ,NOCNM,NOPASS,NOPO,NOTSO,VPACE)
         EAS=2
```

NOTE: The > represents the system prompt.

Step 5.   Create PDSs

At your terminal, create the following PDSs:

- IISSCM.R23.UI.FORMS.FD - VB, LRECL=80, BLOCK=3120, TRKS=15, DIR=15
- IISSCM.R23.PROCLIB - FB, LRECL=80, BLOCK=3120, CYLS=1, DIR=5
- IISSCM.R23.TMPLIS - VB, LRECL=80, BLOCK=3120, TRKS=15, DIR=15
- IISSCM.R23.UI.MSGS.INC - FB, LRECL=80, BLOCK=3120, TRKS=8, DIR=4
- IISSCM.DBRMLIB.DATA - FB, LRECL=80, BLOCK=4000, TRKS=40, DIR=20

Also, create the following sequential dataset:

- IISSCM.R23.UI.INCFIL - FB, LRECL=80, BLOCK=3120, TRKS=10

Step 6.   Copy Procs to PROCLIB

Copy CDMLINK, IISSASM, IISSASR, IISSCCX, IISSCOB, IISSFOR from IISSCM.R23.BUILD to IISSCM.R23.PROCLIB.

Step 7.   Set Operating Parameters

File 1 members IHCPGEN, IHCPORT and CMTBMDL in IISSCM.R23.BUILD
identify to IISS the VTAM application name for IISS Inter Host
Communications and the terminal nodename of the communications link
to the VAX. As necessary, modify these members to your
installation-specific VTAM names.

After modifying, assemble IHCPGEN and CMTBMDL into
IISSCM.R23.STAGELIB using CLIPC23 in IISSCM.R23.BUILD as a
template.

Section 5, Interhost Communication Installation, provides a
complete description of changes that need to be made in order to
set operating parameters. Go to section 5 and complete that
section before moving on to step 8.

Step 8.   Build IISS Tables

Next, if it meets your system's specifications, submit BLDTBL from
IISSCM.R23.BUILD to build the IISS tables.

Step 9.   Load IISS Tables

Submit LODTABLE from IISSCM.R23.BUILD to load the IISS tables.

Step 10.   Build VSAM Files

Submit BLDVSAM and BLDVSM2 from IISSCM.R23.BUILD to build VSAM data
sets.

NOTE: Ignore any return codes of 8 at the DELFILE step.

Step 11.   Load CLISTS

Submit LODCLST from IISSCM.R23.BUILD to load CLISTS into a library,
after adjusting to installation specifications.

Step 12.   Define Operating Environment

Run CLIST MPUGEN to define the IISS operating environment, after
adjusting to installation specifications. This will display the
following menu of options used to build, modify, and generate MPU
table information.

               SYSGEN OPTIONS AVAILABLE

          1.   CREATE SYSGEN FILE
          2.   CREATE NEW IISS SYSGEN DATA RECORD
          3.   MODIFY EXISTING IISS SYSGEN DATA RECORD
          4.   CHANGE IISS INSTANCE
          5.   MODIFY EXISTING APC DATA RECORD
          6.   DELETE EXISTING APC DATA RECORD
          7.   ADD NEW APC DATA RECORD
          8.   QUIT

          PLEASE ENTER NUMBER OF YOUR CHOICE

From this menu select number 1.
Host Name = ibm
Central Node = N
Host to Link to = vax
Port Name to Link = depv
 (instance defined in VTAM table)
From menu select number 4.
New IISS Instance Value = T
From menu select number 8.

The successful completion of step 12 ends the downloading and installation process of executable IISS code from magnetic media. The next step is to activate the NTM and UI subsystems, please go to section 6, Bringing Up the NTM and UI.

SECTION 5

INTER-HOST COMMUNICATIONS INSTALLATION

5.1 Preparing the Remote Host Communication Module

So that each remote host can communicate within the
IISS environment, an IHCPGEN module must be prepared.

The name you give to this module must match the terminal id
or portname which the IISS Communications subsystem uses to
refer to this IBM host. A VTAM application definition statement
also must be placed in your system's VTAMLST. The ACBNAME
parameter also must agree with the value of the APPLID parameter
coded on the IHCPORT macro. Use the following format for the
APPL statement:

    REMHOST   APPL AUTH=ACQ,ACBNAME=REMOTVAX

where REMOTVAX is the value coded for APPLID on the
corresponding IHCPORT macro.

5.2 Defining Remote Host Communications Lines

The communications lines connecting each host must be
defined and varied active prior to starting the inter-host link.
The label on the LU parameter defined by your VTAM system
programmer must match the value coded for the VTRESID parameter
in the IHCPORT macro.

5.3 Linking Remote Host Systems

To complete the inter-host installation process, each
communications link between two IISS systems will have a load
module associated with it. Each module will contain all the
VTAM control blocks necessary to establish and maintain
communications. This module will have the same name as the
portname in the COMM application. It is created by the
'IHCPORT' macro. Use the following format for coding the
IHCPORT macro:

 IHCPORT APPLID=xxxx,TRMID=yyyy,VTRESID=zzzz,WAITV=nnnn,TFLAG=ff

where APPLID is the name of the VTAM ACB name coded in the VTAM
APPL statement. This application must be authorized to acquire
terminals.

TRMID is the portname passed by COMM to the Inter-Host
Communications program to identify this module.

VTRESID is the VTAM LU name of the terminal definition
associated with the port (i.e., the label on the VTAM LU macro
that defines the port).

WAITV is the maximum time in 1/100 seconds that the IHC
program will wait for a response from the port. The default

value is ten seconds. It should be noted that this timeout
value only applies to waiting for replies from the port. When
it is necesary to wait for VTAM to schedule an event, there is
no timeout.

TFLAG is an option to specify terminal characteristics.
Currently, only values of '00' or '80' are supported, with '80'
being the default. A value of '80' indicates whether the port
will support VTAM data flow control request units (DFC RUs) and
other characteristics of a terminal with a FM profile of 3 and
a TS profile of 3. The default value will treat the port as a
remote 3274 or 3276 SNA terminal and a value of '00' will treat
it as a local, non-SNA 3270.

SECTION 6

BRINGING UP THE NTM AND UI

This section provides the instructions you will need to bring up the NTM, shut it down, and bring up the UI subsystem. These instructions are included here as a means of verifying the IISS installation; please consult the appropriate IISS operator and user manuals for IISS operation and application.

6.1 Bringing Up the NTM

The NTM can be initiated by performing the following steps.

Step 1. Establishing NTM in Batch Mode

Adjust BATIISS in IISSCM.R23.BUILD to your installation's parameters (e.g., the STEPLIB DD statements that indicate the COBOL and FORTRAN libraries may be different) and submit for execution. This action will bring up the NTM in batch mode.

Step 2. Verifying NTM

Display the SYSTEM LOG. System messages will be displayed indicating the NTM startup activity. These indicators may display various link failure statements because the VAX communication link has not been established; these statements can be ignored. A statement, however, will be displayed that requests an IISS command entry after NTM startup; this message's number is indicated by "@<msg_no>". Note the request's message number and enter this command: /R <msg_no>, HELP. A list of all available NTM commands will be displayed. Use the DA and DS commands freely; the other commands, because of installation specifics, may have unexpected - but not damaging - results.

All of your command responses should be entered using the following format:

> /R <msg_no>, <command>   (for example, /R 97, DA)

6.2 Shutting Down the NTM

The NTM can be brought down by entering the "SD" command and using the system log function described at step 2. You will be prompted for the number of minutes to delay before the actual shutdown occurs; enter 0 for immediate shutdown. Jobs still running after shutdown can be cancelled. To ensure the validation of the IISS installation, do not shut the NTM down until the UI has been brought up successfully.

6.3 Bringing Up the UI

The UI subsystem can be brought up by performing the following steps.

Step 1.   Setting Up the UI

Execute the CLIST UISETUP in IISSCM.R23.CLIST, after adjusting
to installation specifications. This will set up all of the UI
data sets. Use the following format for this step:

    EXEC 'IISSCM.R23.CLIST(UISETUP)'

Step 2.   FLAN Forms

Adjust the CLIST FLANSA to your installation specifications and
then execute the CLIST FLANSA in IISSCM.R23.CLIST, using the
following format:

EXEC 'IISSCM.R23.CLIST(FLANSA)' 'file(<file_name>)'

All of the following file names should be substituted for
"file_name":

    ARTEST, AUTOTAG, FDFE, FLFRONT, GRFTEST, HEADERD,
    ITMEDIT, MM, PSCREN, RWFRONT, SYSGEN,
    TESTAP, TESTRW, TRANS, UIS, EDITOR, BAKGRD, CMPFLD

NOTE: This step need not be repeated after forms have been
processed using FLAN.

Step 3.   Execute UI

Execute UI by calling UI executables in IISSCM.R23.LOADLIB.

The validation of a successful IISS installation is confirmed
upon the successful execution of the NTM and the UI. Please
refer to the IISS operator manuals and user guides for IISS
application.

APPENDIX A

DEFAULT DATASET NAMES

This appendix lists the default dataset names that are created during IISS Release 3.0 installation.

When an executable tape is installed, data sets listed between rows of asterisks will exist as object libraries with '.OBJLIB' appended to the end.

When a source code tape is installed, data sets listed between rows of asterisks will also have a similarly named data set with '.OBJLIB' appended to the end, existing as object libraries.

```
IISSCM.R23.CLIST
IISSCM.DBRMLIB.DATA
IISSCM.R23.PROCLIB
IISSCM.R23.AGNTBL
IISSCM.R23.APCQUE
IISSCM.R23.APCQUE.DATA
IISSCM.R23.APCQUE.INDEX
IISSCM.R23.APCTBL
IISSCM.R23.APITBL
IISSCM.R23.APOTBL
IISSCM.R23.APOTBL.DATA
IISSCM.R23.APOTBL.INDEX
IISSCM.R23.APPDEF
IISSCM.R23.APPDEF.DATA
IISSCM.R23.APPDEF.INDEX
IISSCM.R23.APQUE
IISSCM.R23.APQUE.DATA
IISSCM.R23.APQUE.INDEX
IISSCM.R23.APSTBL
IISSCM.R23.APSTBL.DATA
IISSCM.R23.APSTBL.INDEX
IISSCM.R23.APTTBL
IISSCM.R23.APWQUE
IISSCM.R23.APWQUE.DATA
IISSCM.R23.APWQUE.INDEX
IISSCM.R23.BUILD
IISSCM.R23.CDM.CDMR
IISSCM.R23.CDM.TEST
IISSCM.R23.CLDTBL
IISSCM.R23.CLDTBL.DATA
IISSCM.R23.CLDTBL.INDEX
IISSCM.R23.COMM
IISSCM.R23.DIRTBL
IISSCM.R23.ERRLOG
IISSCM.R23.GDFILE
IISSCM.R23.GDFILE.DATA
IISSCM.R23.GDFILE.INDEX
IISSCM.R23.GRDSTS
IISSCM.R23.GRDSTS.DATA
IISSCM.R23.GRDSTS.INDEX
IISSCM.R23.HLIB
```

```
IISSCM.R23.HSTTBL
IISSCM.R23.IATTBL
IISSCM.R23.IATTBL.DATA
IISSCM.R23.IATTBL.INDEX
IISSCM.R23.IPC
IISSCM.R23.LATTICE.MODS
IISSCM.R23.LOADLIB
IISSCM.R23.LOGTBL
IISSCM.R23.LSTTBL
IISSCM.R23.MBXLG2
IISSCM.R23.MPRTBL
IISSCM.R23.MPRTBL.DATA
IISSCM.R23.MPRTBL.INDEX
IISSCM.R23.NACTBL
IISSCM.R23.NACTBL.DATA
IISSCM.R23.NACTBL.INDEX
IISSCM.R23.NTM.LIBDAT
IISSCM.R23.NTM.MONITOR
IISSCM.R23.NTM.MPU
IISSCM.R23.NTM.TEST
IISSCM.R23.NTM.UTILITY
IISSCM.R23.NTMLOG
IISSCM.R23.OTHDLQ
IISSCM.R23.ROLAPP
IISSCM.R23.ROLAPP.DATA
IISSCM.R23.ROLAPP.INDEX
IISSCM.R23.ROLAPPP
IISSCM.R23.ROLAPP1
IISSCM.R23.SOURCE
IISSCM.R23.STAGELIB
IISSCM.R23.SYSGEN
IISSCM.R23.TMPLIS
*********************************************
IISSCM.R23.NTM.SERVICES
IISSCM.R23.UI.ACTEST
IISSCM.R23.UI.CLIB
IISSCM.R23.UI.DEVDRV
IISSCM.R23.UI.DRIVER
IISSCM.R23.UI.FDFE
IISSCM.R23.UI.FE
IISSCM.R23.UI.FLAN
IISSCM.R23.UI.FP
IISSCM.R23.UI.FPAI
IISSCM.R23.UI.MININTM
IISSCM.R23.UI.MM
IISSCM.R23.UI.RAP
IISSCM.R23.UI.RAPSA
IISSCM.R23.UI.SAFP
IISSCM.R23.UI.TE
IISSCM.R23.UI.TEST
IISSCM.R23.UI.UIS
IISSCM.R23.UI.UTIL
*********************************************
IISSCM.R23.UI.DUMP
IISSCM.R23.UI.FORMS.FD
JISSCM.R23.UI.FORMS.FDL
IISSCM.R23.UI.IBMASM
IISSCM.R23.UI.INCFIL
IISSCM.R23.UI.MSGS
```

IISSCM.R23.UI.MSGS.INC
IISSCM.R23.USEROL
IISSCM.R23.USEROL.DATA
IISSCM.R23.USEROL.INDEX
IISSCM.R23.USEROLP
IISSCM.R23.USEROL1
IISSCM.R23.USRDEF
IISSCM.R23.USRDEF.DATA
IISSCM.R23.USRDEF.INDEX

APPENDIX B

IISS RELEASE 3.0 SOURCE CODE INSTALLATION

The IISS Release 3.0 source code may be installed in place of the object code version if your organization by arrangement intends to tailor, or customize, the IISS application.

Perform the following steps to install IISS source code onto your IBM system from magnetic tape, and then compile and link the installed code:

Step 1.   Preparing Source Code Installation JCL

Duplicate and modify to your installation's requirements the following JCL to download the first file from Volume 1 of the IISS source code tapes:

```
//IISSCM   JOB (IISSCM),'IISS SYSTEM',CLASS=A,MSGCLASS=X,
//         NOTIFY=IISSCM
//* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
//*               CREATE JCL BUILD DATASET                        *
//* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
//DOWNLD1     PROC IISS='IISSCM', * IISS SYSTEM HIGH LEVEL INDEX
//                 R='R23',          * IISS RELEASE LEVEL
//                 TVOL='AF231',     * SOURCE TAPE UNIT NAME
//                 DUNIT='3380',     * DESTINATION DASD UNIT NAME
//                 DVOL='WORK01'     * DESTINATION VOL. SER. NUMBER
//STEP1 EXEC PGM=IEBCOPY,REGION=2000K
//SYSPRINT DD SYSOUT=X
//SYSUT3 DD UNIT=WORK,SPACE=(CYL,20)
//SYSUT4 DD UNIT=WORK,SPACE=(CYL,20)
//IN1     DD DSN=OBJLIB1,UNIT=TAPE,DISP=OLD
//           LABEL=(1,BLP,EXPDT=98000),
//           DCB=(DSORG=PO,BLKSIZE=3120,LRECL=80,RECFM=FB
//           VOL=(,RETAIN,SER&TVOL)
//OUT1    DD DSN=&IISS..&R..BUILD,UNIT=&DUNIT,
//           DCB=(DSORG=PO,BLKSIZE=3120,LRECL=80,RECFM=FB),
//           DISP=(,CATLG,DELETE),SPACE(TRK,(285,20,35),RLSE),
//           VOL=SER=&DVOL
//SYSIN   DD DUMMY
// PEND
//*
//IEBC1   EXEC DOWNLD1
//STEP1.SYSIN DD *
 COPY INDD=IN1, OUTDD=OUT1
/*
/*
```

You should modify this JCL to assure conformance to your installation's current requirements before attempting execution. Also, be sure to modify all subsequent members to installation specifics before execution. Note: a return code of 8 may be ignored; check output log for specifics.

Step 2.   Create PDSs

At your terminal, create the following PDSs:

- IISSCM.R23.UI.FORMS.FD - VB, LRECL=80, BLOCK=3120,
    TRKS=15, DIR=15
- IISSCM.R23.PROCLIB - FB, LRECL=80, BLOCK=3120,
    CYLS=1, DIR=5
- IISSCM.R23.TMPLIS - VB, LRECL=80, BLOCK=3120,
    TRKS=15, DIR=15
- IISSCM.R23.UI.MSGS.INC - FB, LRECL=80, BLOCK=3120,
    TRKS=8, DIR=4
- IISSCM.DBRMLIB.DATA - FB, LRECL=80, BLOCK=4000,
    TRKS=40, DIR=20
- IISSCM.R23.STAGELIB - U, LRECL=0, BLOCK=19069
    TRKS=300, DIR=120
- IISSCM.R23.LOADLIB - U, LRECL=0, BLOCK=19069
    TRKS=750, DIR=50

Also, create the following physical sequential dataset:

- IISSCM.R23.UI.INCFIL - FB, LRECL=80, BLOCK=3120,
    TRKS=10

Step 3:   Download Remaining Tape Source Code

The remaining PDSs on tape can be downloaded by adjusting and
submitting members DNLDJB2 with Volume 1 of the tape and DNLDJB3
with Volume 2 in IISSCM.R23.BUILD. This process will download
all remaining source code PDSs into the IBM. A return code of 8
for DNLDJB2 may be ignored; check output log for specifics.

Step 4:   Assign ACB Names

Assign the following, new ACB names to SYS1.VTAMLST:

```
> APPL   ACBNAME=IISST
        AUTH=(ACQ,NOCNM,NOPASS,NOPO,NOTSO,VPACE)
        EAS=2
> APPL   ACBNAME=IISSTIV
        AUTH=(ACQ,NOCNM,NOPASS,NOPO,NOTSO,VPACE)
        EAS=2
```

Step 5:   Set Operating Parameters

Members IHCPGEN, IHCPORT and CMTBMDL in IISSCM.R23.IPC identify
to IISS the VTAM application name for IISS Inter-Host
Communications and the terminal nodename of the communications
link to the VAX. Modify these members to your installation
specific VTAM names. Go to Section 5, Inter-Host Communications
Installation, and complete the steps at that section before
moving on to step 6.

Step 6.   Copy Procs to PROCLIB

Copy CDMLINK, IISSASM, IISSASR, IISSCCX, IISSCOB, IISSFOR from IISSCM.R23.BUILD to IISSCM.R23.PROCLIB.

Step 7:   Submit Compilation JCL

All members of the build dataset beginning with 'CL' are the JCL you will use to perform compilations of the IISS source code. These members may contain multiple JOB cards; modification may be necessary to adjust to installation specifications.

-   Submit member CLIPC23 to compile the IBM system primitive routines.
-   Submit member CLCOMM23 to compile the communications application.
-   Submit member CLNTM23 to compile the NTM programs. A return code 8 on LOGTSK and TBLUTIL is valid.
-   Submit member CLCDM23 to compile the CDMR utility programs.
-   Submit member CLUI23 to compile the User Interface routines.
-   Submit member CLEXIM to compile the UI Database.
-   Submit member CLEXTRA to compile additional source code.

Step 8.   Build IISS Tables

Next, if it meets your system's specifications, submit BLDTBL from IISSCM.R23.BUILD to build the IISS tables.

Step 9.   Load IISS Tables

Submit LODTABLE from IISSCM.R23.BUILD to load the IISS tables.

Step 10.   Load CLISTS

Submit LODCLST from IISSCM.R23.BUILD to load CLISTS into a library.

Step 11:   Assign Alias to New Modules

Submit ALIAS in IISSCM.R23.CLIST to assign alias names to the generated object modules after adjusting to installation specifics.

Format for this command is EXEC 'IISSCM.R23.CLIST(ALIAS)' 'GROUP(<group_name>)'

Execute this command with the following group names:

FLAN, FE, TEST, FP, FDFE, SAFP, DEVDRV, DRIVER, CLIB, TE, FPAI

Step 12: Build Additional VSAM files

12a. Submit member LKEXIM to link UI Database in IISSCM.R23.BUILD.
12b. Submit members BLDVSAM and BLVDVSM2 in ISSCM.R23.BUILD to create VSAM data sets. Note: A return code of 8 on the DELFILE step of BLDVSM2 is valid.

Step 13: Link Source with Executable Code

All members of the BUILD dataset beginning with 'LK' are used to link the object modules into the executable load modules.

Submit all members of IISSCM.R23.BUILD that begin with 'LK'; this will link all appropriate IISS code.

Note: If LKEXIM has already been run successfully, it need not be run in this step.

Step 14: Define Operating Environment

Run CLIST MPUGEN to define the IISS operating environment. This will display the following menu of options used to build, modify, and generate MPU table information.

SYSGEN OPTIONS AVAILABLE

1. CREATE SYSGEN FILE
2. CREATE NEW IISS SYSGEN DATA RECORD
3. MODIFY EXISTING IISS SYSGEN DATA RECORD
4. CHANGE IISS INSTANCE
5. MODIFY EXISTING APC DATA RECORD
6. DELETE EXISTING APC DATA RECORD
7. ADD NEW APC DATA RECORD
8. QUIT

PLEASE ENTER NUMBER OF YOUR CHOICE

From this menu select number 1.
Host Name = ibm
Central Node = N
Host to Link to = vax
Port Name to Link = depv
  (instance defined in VTAM table)
From menu select number 4.
New IISS Instance Value = T
From menu select number 8.

This completes the download of IISS source code from magnetic media. IISS can be started following the completion of the preceding steps. If it cannot be started, please review the activity for the preceding steps, correct any errors and try again.